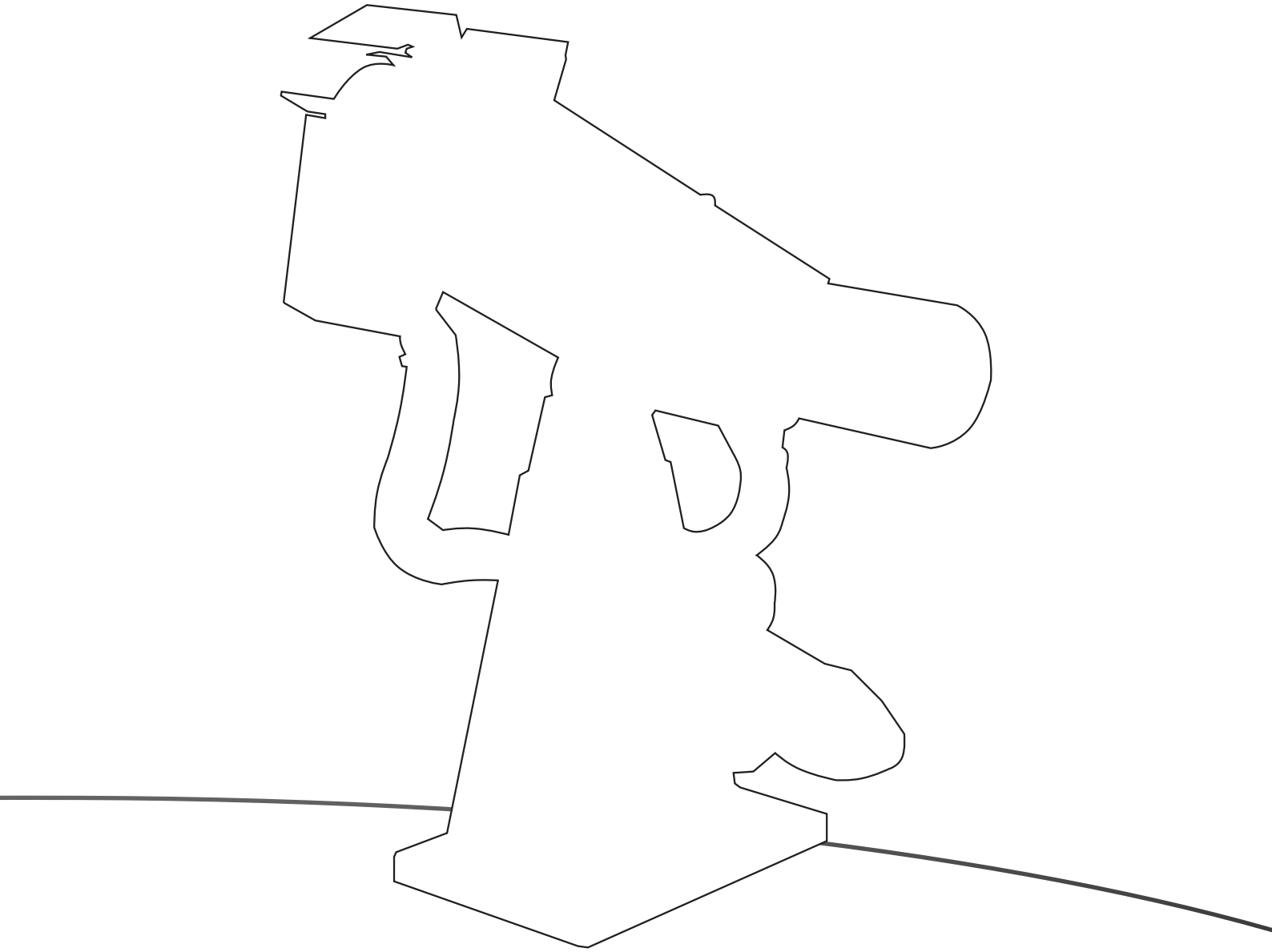

B E L T G R I N D E R S

GRIMAX 50,75,100,150
S - BRAKE

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Belt grinders Grimax 50,75,100,150 S - Brake

A. General safety rules for all machines

N.B.: Read the instructions carefully in order to avoid any problems.

As with all machinery there are certain hazards involved with operation and use of this machine. Using the machine with respect and caution will considerably lessen the possibility op personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may occur. Observe these rules insofar as they are applicable to this particular machine.
This machine was designed for certain applications only. We strongly recommend that this machine NOT be modified in any way and/or used for any application other than for which it was designed.
If you have any questions relative to its application DO NOT use the machine until you have contacted your dealer.

1. For your own safety read the instruction manual before operating the tool.
2. Keep all guards in place and in working order.
3. Ground all tools.
4. Remove adjusting keys and wrenches. Make a habit of checking the machine before turning it on.
5. Keep the work area clean. Cluttered areas and benches invite accidents.
6. Do not use in a dangerous environment, such as damp or wet locations or expose to rain. Always keep the work area well-lit.
7. Keep children and visitors away. They must be kept at a safe distance from the machine at all times.
8. Make sure that the work area is not accessible to unauthorised persons. Use padlocks, master switches, remove starter keys etc.
9. Never overload the machine. The capacity of the machine is at its largest when properly loaded.
10. Do not force the machine or attachment to do a job for which it was not designed.
11. Wear proper apparel. No loose clothing, gloves, neckties, rings, necklaces, bracelets or jewellery: they may get caught in moving parts. No slip footwear is recommended. Wear a hairnet to contain long hair.
12. Always wear safety glasses and work according to safety regulations. Use a face or dust mask if operation is dusty.
13. Always secure workpiece tightly using a vise or clamping device. This will keep both hands free to operate the machine.
14. Do not overreach. Keep your proper footing and balance at all times.
15. Maintain tools in top condition. Keep them sharp and clean. Read the instructions carefully and follow the instructions for cleaning, lubrication and tool replacement.
16. Lubricate the machine and fill all oil reservoirs before operation.
17. Disconnect tools before servicing and when changing accessories such as blades, bits, cutters etc.
18. Use only recommended accessories. Consult the owner's manual for recommended accessories. The use of improper accessories may cause hazards.
19. Avoid accidental starting. Make sure the on/off switch is in the "OFF" position before plugging in the power cord.
20. Never stand on the machine or tools. Serious injury could occur if the machine is tipped or if the cutting tool is accidentally touched.
21. Check damaged parts. Replace or repair damaged parts immediately. Check machine for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation.
22. Direction of feed. Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
23. Never leave tool running unattended. Do not turn power off until it has come to a complete stop.
24. Alcohol, medication, drugs. Never us the machine while under the influence of alcohol, medication or drugs.
25. Make sure the tool is disconnected from the power supply, before servicing, repairing etc.
26. Keep the original packing for future transport or relocation of the machine.

B. Additional safety rules

Always keep in mind that:

- the machine must be switched off and disconnected from the power supply during maintenance and repairs,
- clamped workpieces may only be measured when the machine is switched off.

Never lean over the machine, mind loose clothing, ties, jewellery etc. and wear a cap.
Do not remove safety devices or guards. Never use the machine while a guard is open.
Always use safety glasses for machining rough materials.
Burrs and chips should only be removed using a sweeper or other aid, never with your bare hands!
Never leave the machine running unattended.

Always wear safety glasses!

1. Transport & Handling

1.1 Transport

The GRIMAX belt grinding machine is packed in protective wrapping and delivered on a pallet with the following measures: 120 x 80 x 120 cm

1.2 Handling

The machine can easily be transported on the pallet on which it is delivered.

1.3 Placing

Mounting of the belt grinder must take place on a firm and level ground. The machine must be fastened to the ground by means of the four fittings which are used to fasten the belt grinder to the pallet.

The machine is provided with no-volt release protection switch and connected for the wanted voltage (V). The electrical connection must be performed by an authorized electrician, and it is important to control that the motor (and ventilator) has the correct direction or rotation (please see the arrow on the motor).

Eye shields, suction hose and perhaps dust bag must be mounted before use. The clamps for mounting the suction hose are placed in the dust bag. The eye shields (A) must be mounted into the eye shield fitting (see *fig.: 1.1*).

The tool rest (B) must be mounted at a distance of minimum 2 mm from the belt, and the handle (C) must be fastened. Turn the contact wheel by your hand and adjust the belt by means of the handle (D) until it runs just on the contact wheel (E). It must be controlled that the spark box (F) is properly fastened. The wanted working height is adjusted by means of the (G).

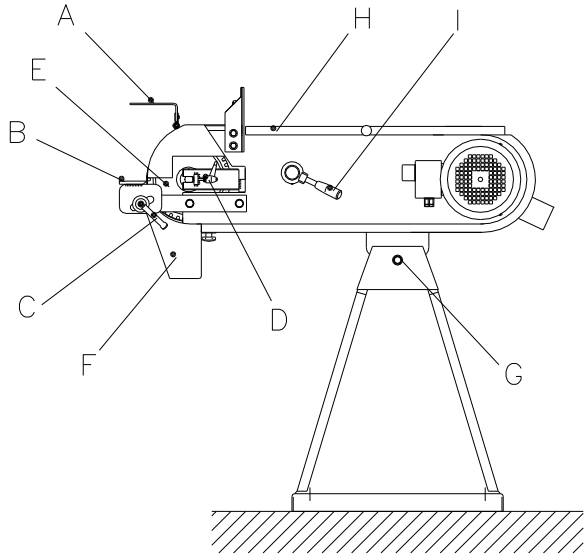


Fig.: 1.1

2. Directions

2.1 Operation

After adjustment and connection the belt grinding machine is ready for use. The grinding can take place by the contact wheel (E) or on the surface grinding table by opening the cover (H). The lifetime of a new belt is prolonged if the grinding starts with a light pressure.

2.2 Safety rules for stationary power tools.

Follow them to achieve best results and full benefit from your new machine

2.3 Maintenance

Empty the spark box with regular intervals and control if the suction canals need a cleaning. The dust bag has to be emptied after use. The contact wheel should be replaced when the edges have been worn round or the tyre has been damaged. The graphite pad on the surface grinding table is changed as required.

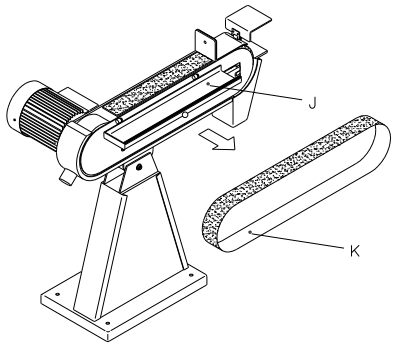


Fig.: 2.2

When changing the belt it is released by turning the handle (I) in anti-clock-wise direction (see *fig.: 2.1*), the cover (J) is opened and the worn-down belt (K) is removed by driving the belt against the direction of rotation, and the belt is removed from the machine by the drive wheel. The new belt is fitted. It must be checked that the direction of the arrows on the back side of the belt correpsond to the direction of rotation. Fasten the handle (I) again and bring it into alignment with the handle (D).

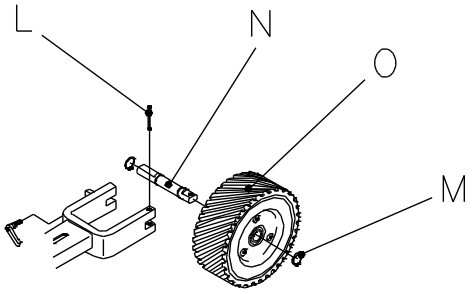


Fig.: 2.3

To change the contact wheel remove the grinding belt, tool rest and spark arrester. Use a 6 mm mandel to hammer out the pin (L). Now the contact wheel with axle and bearings can be taken out. One of the lock rings (M) and the axle (N) can be taken out. The new contact wheel (O) is fitted in in reverse order.

3. Spare Parts List

3.1 Drawing of Belt Grinding Machine without Exhaust system

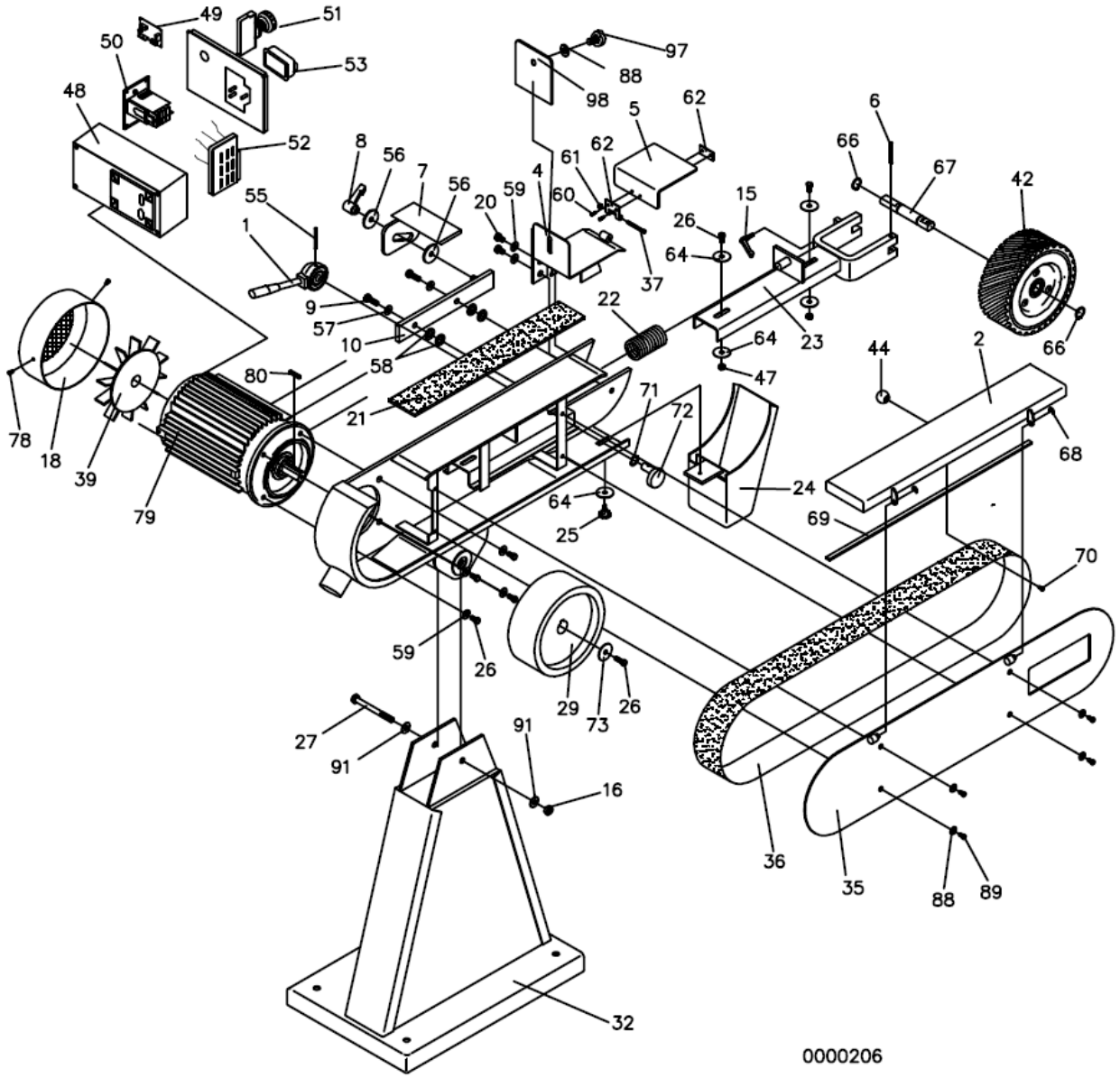


Fig.: 3.1

3.2 Spare Parts List for Belt Grinding Machine without Exhaust System

When ordering spare parts please state machine type and serial number together with item number and description of the part according to this list.

Item No.	Description	Part Number			
		50-2000	75-2000	100-2000	150-2000
1	Belt Release Handle	0102267	0102267	0102267	0102267
2	Belt guard	1055931	0239202	0239302	0239502
4	Grinding stop / Cover Blue	1055636	0880002	4532342	4532344
5	Eye shield	0233605	0233605	0233705	0233705
6	Split pin ø6x50 mm	0233050	0233050	0233050	0233050
7	Tool rest	1055634	0233207	0233307	0233507
8	Handle for tool rest	0233808	0233808	0233808	0233808
9	Bolt M10x25	0300134	0300134	0300134	0300134
10	Support for tool rest	0239373	0239373	0239373	0239373
15	Handle M6x25	0233025	0233025	0233025	0233025
18	Fan cover for motor	2031017	-	-	-
20	Screw M8x12	0300144	0300144	0300144	0300144
21	Graphite pad	0233022	0233221	0233321	0233521
22	Spring 5,5x43x125x11 mm	0102265	0102265	0102265	0102265
23	Cradle for contact wheel	1055629	0110223	0110323	0110523
24	Spark arrester	1055638	0101224	0101324	0101524
25	Star Handle Ø32 M6x16	0233806	0233806	0233806	0233806
26	Screw M8x20	0233020	0233020	0233020	0233020
27	Bolt M12x100	4567832	4567832	4567832	4567832
29	Drive wheel	5020024	-	-	-
32	Base without exhaust system	0239832	0239832	0239832	0239832
35	Side panel	6549081	6549081	6549081	6549081
36	Grinding belt	-	-	-	-
37	Screw M6x45 CH	0950614	0950614	0950614	0950614
39	Fan wheel for motor	0995704	-	-	-
42	Contact wheel with bearings	1532150	1535005	1535004	1535007
44	Ball handle M6xØ25	0331662	0331662	0331662	0331662
47	Lock nut M8	0928644	0928644	0928644	0928644
48	Switch comp.	-	-	-	-
49	Brake Module (Additional)	0188845	0188845	0188845	0188845
50	Thermo relay	-	-	-	-
51	Emergency stop comp.	0188892	0188892	0188892	0188892
52	Relay w/0-volt retease coil	-	-	-	-
53	Start/stop protection cover	0188893	0188893	0188893	0188893
55	Split pin Ø4x50 mm	0102266	0102266	0102266	0102266
56	Disc 10x45x4	0860327	0860327	0860327	0860327
57	Disc 10mm	0101491	0101491	0101491	0101491
58	Disc 10mm	2323212	2323212	2323212	2323212
59	Disc 8mm	5437850	5437850	5437850	5437850
60	Screw M4x8	0100425	0100425	0100425	0100425
61	Lock nut M6	0951406	0951406	0951406	0951406
62	Hinge mounting for eye shields	0921475	0921475	0921475	0921475
64	Disc 8mm	6540981	6540981	6510981	6540981
66	Lock ring Ø20	0311262	0311262	0311262	0311262
67	Shaft	0233051	0233251	0233351	0233551
68	Lock ring Ø7	0915720	0915720	0915720	0915720
69	Rubber list 657 mm	1055860	1055860	1055860	1055860
70	Screw M6x12	0930612	0930612	0930612	0930612
71	Wave spring 14x0.3x21	0102268	0102268	0102268	0102268
72	Eccentric for 8 mm motor sheet	0752262	0752262	0752262	0752262
73	Disc 8mm	6540981	6540981	6510981	6540981
78	Screw M4x5	0737620	0737620	0737620	0737620
79	Motor	2030038	-	-	-
80	Parallel key	0110071	-	-	-
88	Disc 6mm	0737631	0737631	0737631	0737631
89	Screw M6x10	0110089	0110089	0110089	0110089
91	Disc 8mm	0105167	0105167	0105167	0105167
97	Star M6	0233807	0233807	0233807	0233807
98	Rest for surface grinding	1055679	1055680	1055681	1055682

3.3 Drawing for Belt Grinding Machine with Exhaust System

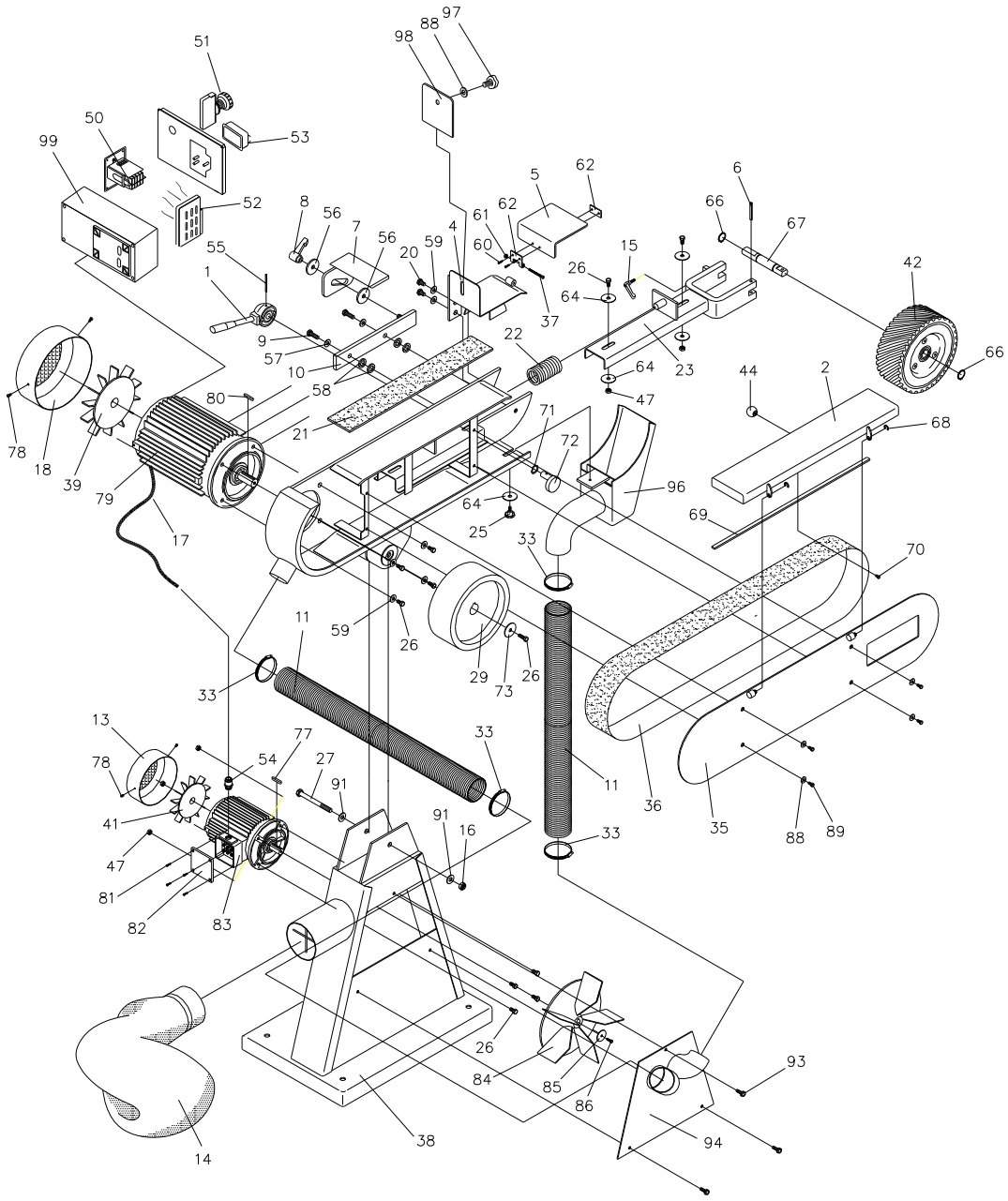


Fig.: 3.2

3.4 Spare parts List for Belt Grinding Machine with Exhaust System

When ordering spare parts please state machine type and serial number together with item number and description of the part according to this list.

Item No.	Description	Part Number			
		75X-2000	75X-2000	100X-2000	150X-2000
1	Belt release handle	0102267	0102267	0102267	0102267
2	Belt guard	1055931	0239202	0239302	0239502
4	Grinding stop/Cover Blue	1055636	0880002	4532342	4532344
5	Eye shield	0233605	0233605	0233705	0233705
6	Split pin ø6x50 mm	0233050	0233050	0233050	0233050
7	Tool rest	1055634	0233207	0233307	0233507
8	Handle for tool rest	0233808	0233808	0233808	0233808
9	Screw M10x25	0300134	0300134	0300134	0300134
10	Support for tool rest	0104373	0104373	0104373	0104373
11	Suction hose ø63	7891011	7891011	7891011	7891011
13	Fan cover for exhaust motor	2075180	2075180	2075180	2075180
14	Dust bag	0811793	0811793	0811793	0811793
15	Handle M6x25	0233025	0233025	0233025	0233025
16	Lock nut M12	0105166	0105166	0105166	0105166
17	Cable	0963084	0963084	0963084	0963084
18	Fan cover for motor	2031017	-	-	-
20	Screw M8x12	0300144	0300144	0300144	0300144
21	Graphite pad	0233022	0233221	0233321	0233521
22	Spring 5,5x43x125x11 mm	0102265	0102265	0102265	0102265
23	Fork for contact wheel	1055629	0101224	0101324	0101524
25	Star handle Ø32 M6x16	0233806	0233806	0233806	0233806
26	Screw M8x20	0233020	0233020	0233020	0233020
27	Bolt M12x100	4567832	4567832	4567832	4567832
29	Drive wheel	5020024	-	-	-
33	Hose strap 58-75 mm	0233058	0233058	0233058	0233058
35	Side plate for GRIMAX	6549081	6549081	6549081	6549081
36	Grinding belt	-	-	-	-
37	Screw M6x45 CH	0950614	0950614	0950614	0950614
38	Dust extractor	0239853	0239853	0239853	0239853
39	Fan wheel for motor	-	-	-	-
41	Fan wheel for exhaust motor	2031015	2031015	2031015	2031015
42	Contact wheel with ball bearings	1535005	1535005	1535004	1535007
44	Ball handle M6xØ25	0331662	0331662	0331662	0331662
47	Lock nut M8	0928644	0928644	0928644	0928644
50	Thermo relay	-	-	-	-
51	Emergency stop comp.	0188892	0188892	0188892	0188892
52	Relay w/0-volt retease coil	-	-	-	-
53	Start/stop protection	0188893	0188893	0188893	0188893
55	Split pin Ø4x50 mm	3454351	3454351	3454351	3454351
56	Disc 10x45x4	0860327	0860327	0860327	0860327
57	Disc 10mm	0101491	0101491	0101491	0101491
58	Disc 10mm	2323212	2323212	2323212	2323212
59	Disc 8mm	5437850	5437850	5437850	5437850
60	Screw M4x8	0100425	0100425	0100425	0100425
61	Lock nut M6	0951406	0951406	0951406	0951406
62	Hinge mounting for eye shields	0921475	0921475	0921475	0921475
64	Disc 8mm	6540981	6540981	6540981	6540981
66	Lock ring Ø20	0311262	0311262	0311262	0311262
67	Shaft	0233051	0233251	0233351	0233551
68	Lock ring Ø7	0915720	0915720	0915720	0915720
69	Rubber strip 657 mm	1055860	1055860	1055860	1055860
70	Screw M6x12	0930612	0930612	0930612	0930612
71	Wave spring 14x0.3x21	0102268	0102268	0102268	0102268
72	Eccentric for 8 mm motor sheet	0752262	0752262	0752262	0752262
73	Disc 8mm	6540981	6540981	6540981	6540981
77	Parallel key 36x6x6	0110077	0110077	0110077	0110077
78	Screw M4x5	0737620	0737620	0737620	0737620
79	Motor	2030038	-	-	-
80	Parallel key	0110071	-	-	-
81	Screw M4x12	0737610	0737610	0737610	0737610
82	Cover for terminal box	0110082	0110082	0110082	0110082
83	Exhaust motor 0.5HP	2030040	2030040	2030040	2030040
84	Fan wheel large 250 mm	0995704	0995704	0995704	0995704
85	Disc 5mm	0233030	0233030	0233030	0233030
86	Screw M5x30	0331786	0331786	0331786	0331786
88	Disc 6mm	0737631	0737631	0737631	0737631

89	Screw M6x10	0110089	0110089	0110089	0110089
91	Disc 12mm	0105167	0105167	0105167	0105167
93	Screw Taptite M6x16	0910616	0910616	0910616	0910616
94	Side plate for base	0239128	0239128	0239128	0239128
96	Spark box with exhaust system	1055643	0239252	0239352	0239552
97	Star M6	0233807	0233807	0233807	0233807
98	Rest for surface grinding	1055679	1055680	1055681	1055682
99	Switch comp.	-	-	-	-

4. Technical Data

4.1 Technical Specifications

Model	**50/50X**	**75/75X**	**100/100X**	**150/150X**
Grinding belt	50x2000	75x2000	100x2000	150x2000
Motor 3x380-440 V 50 Hz *	3,6 HK	4,1 HK 4,8 HK	4,8 HK	4,8 HK *
Class	IEC 34-1	IEC 34-1	IEC 34-1	IEC 34-1
IP Class	54	54	54	54
R/min.	2800	2800	2800	2800
Amp	10.6/6.1	10.6/6.1	10.6/6.1	10.6/6.1
Cos	0,91	0,91	0,91	0,91
Belt speed (m/s)	30/34	30	30	30
Contact wheel	Ø200x50	Ø200x75	Ø200x100	Ø200x150
Grinding surface	540 mm	540 mm	540 mm	540 mm
Fan motor (only X-model)	0,5 HK	0,5 HK	0,5 HK	0,5 HK
Weight without fan/with fan	85 kg/111 kg	85 kg /111 kg	90 kg/ 116 kg	114 kg /140 kg

* 5,5 HP motor available.

4.2 Dimensions

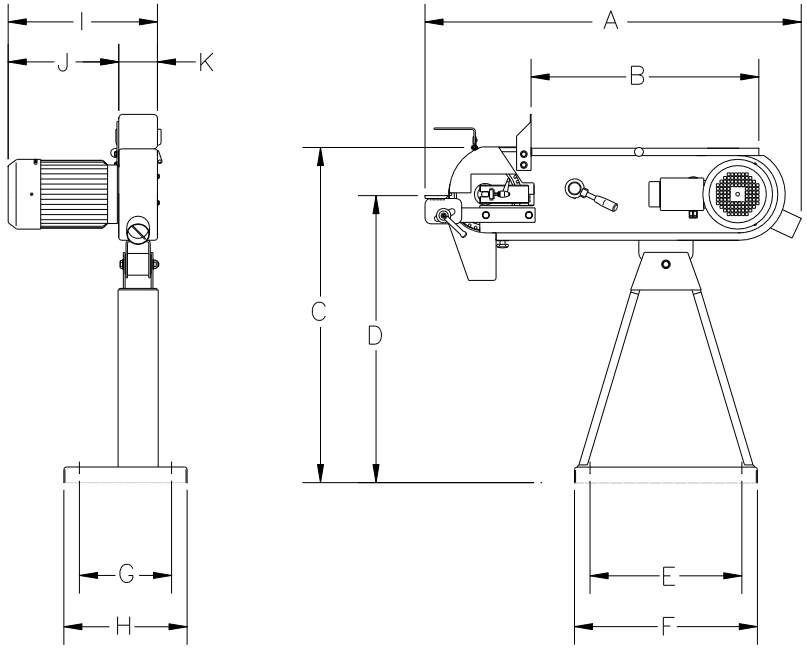


Fig.: 4.2

Model	A	B	C	D	E	F	G	H	I	J	K
50	995	660	890	780-1070	420	506	255	341	392	306	86
75	995	660	890	780-1070	420	506	255	341	413	306	107
100	995	660	890	780-1070	420	506	255	341	439	306	133
150	995	660	890	780-1070	420	506	255	341	491	306	185

4.3 Circuit diagrams

GRIMAX belt grinding machines can be connected to 3 x 400/440 V, 50/60 cycles and to 3 x 230 V 50/60 cycles. There is three kinds of circuit diagrams:

1. One velocity grinder without brakes see 4.3.1 and 4.3.2
2. One velocity grinder with brakes see 4.3.3 and 4.3.4
3. Two velocity grinder with no brakes see 4.3.5 and 4.3.6

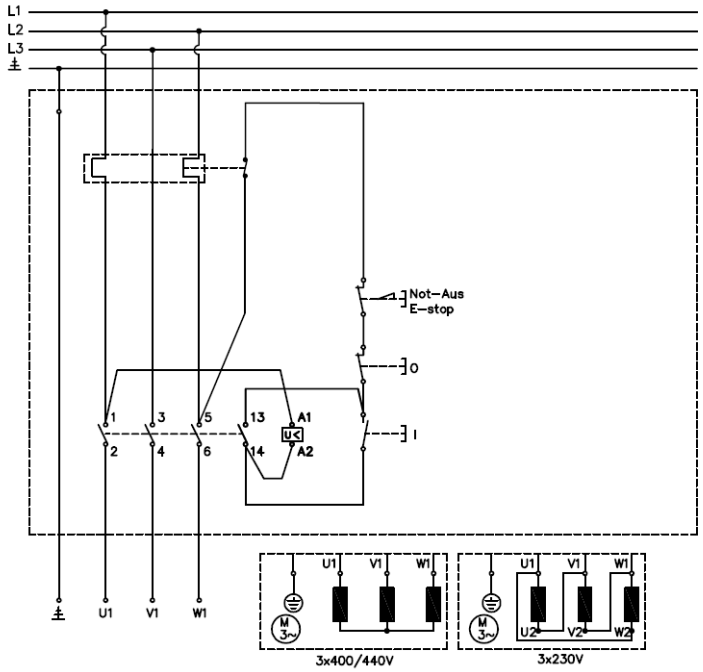


Fig. 4.3.1.: Diagram of belt grinder with no exhaustmotor.

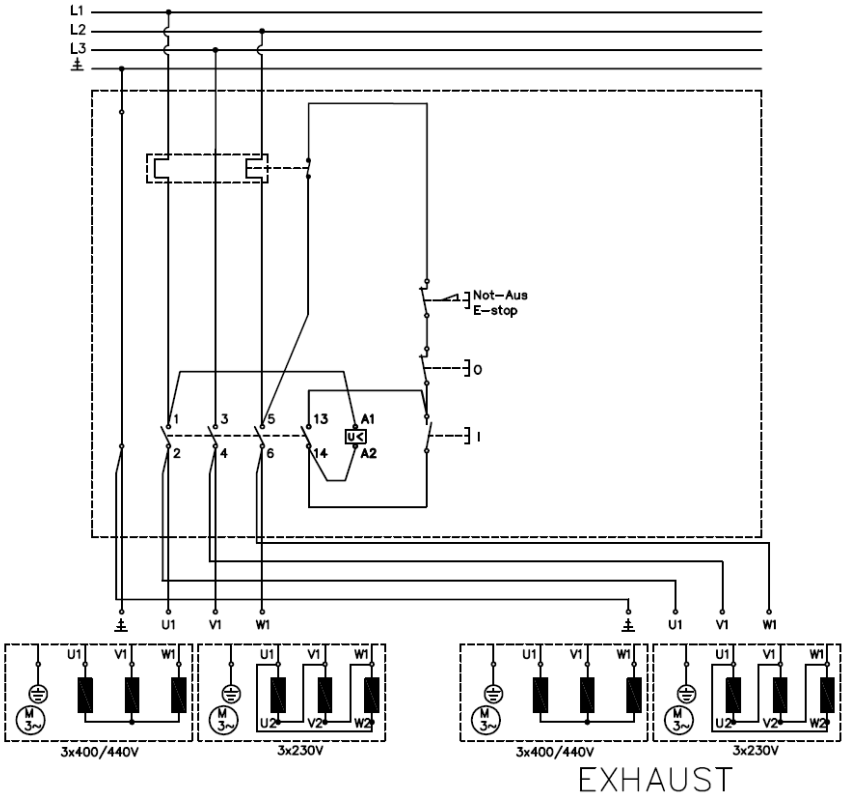


Fig. 4.3.2.: Diagram of belt grinder with exhaustmotor.

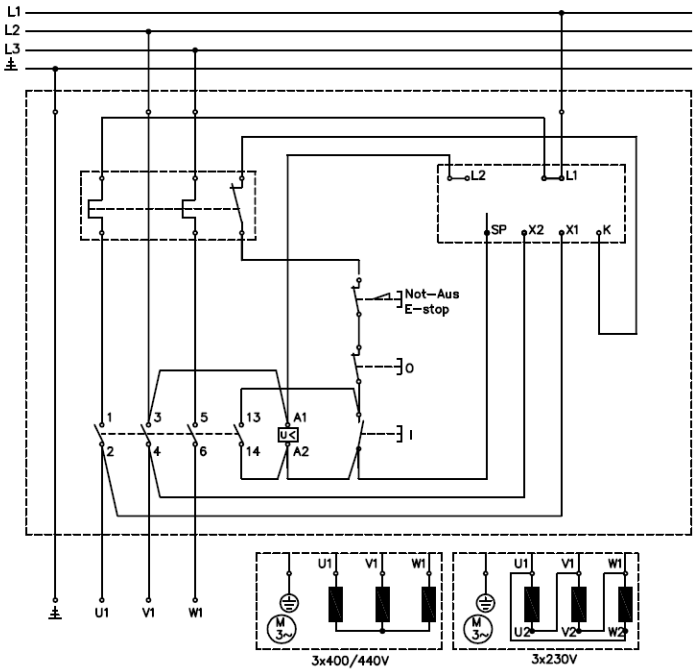


Fig.: 4.3.3 Diagram of belt grinder with brake and no exhaustmotor.

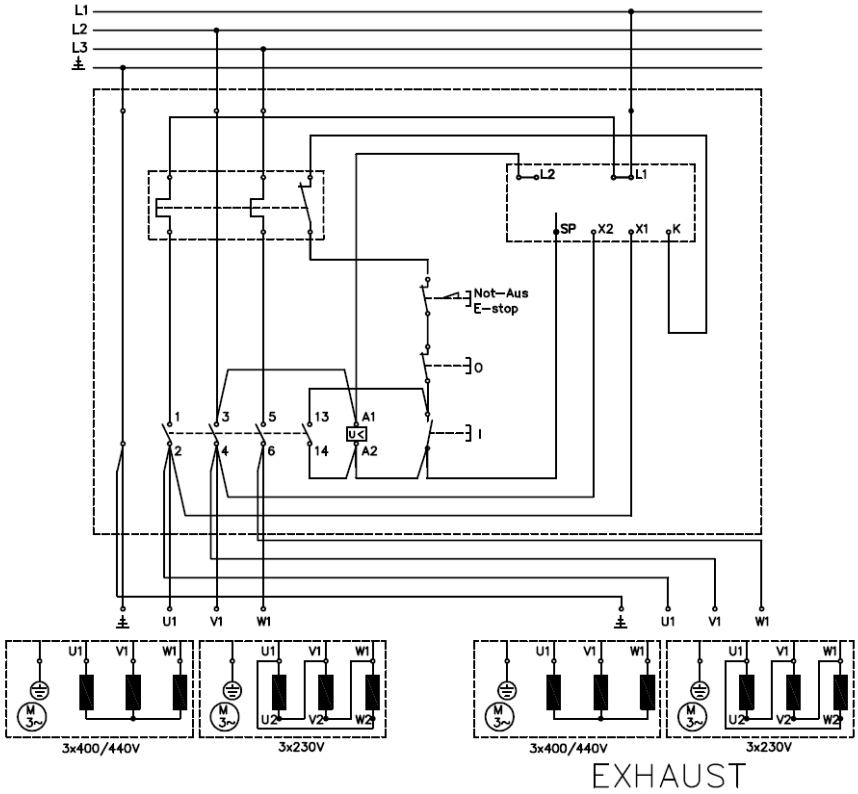


Fig.: 4.3.4 Diagram of belt grinder with brake and exhaustmotor.

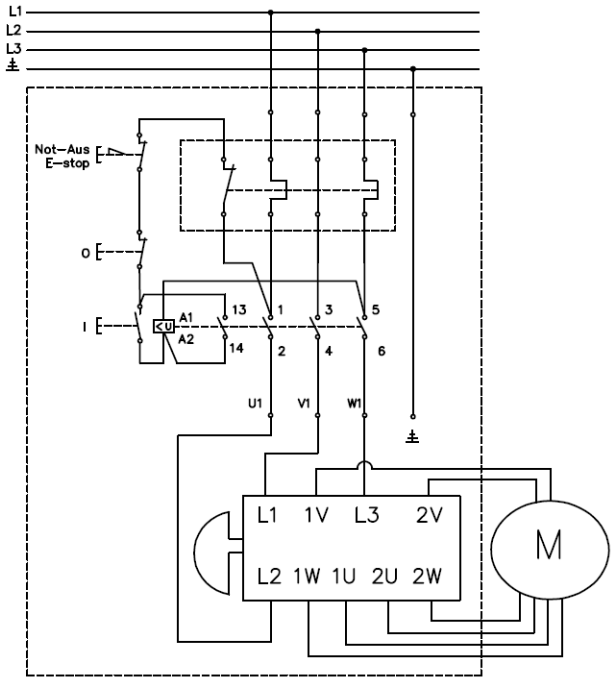


Fig.: 4.3.5 Diagram of belt grinder with two velocities and no exhaustmotor.

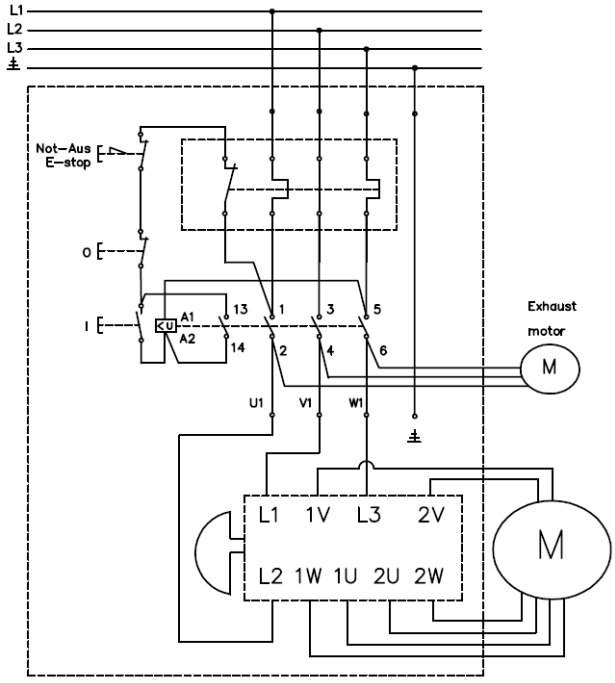
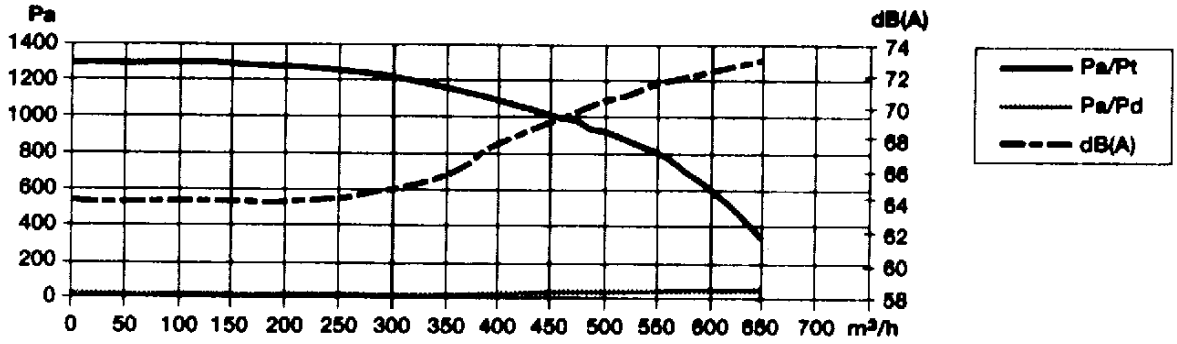


Fig.: 4.3.6 Diagram of belt grinder with two velocities and exhaustmotor.

4.4 Pressurediagram

The fan is especially developed for belt grinders. It can set up a pressure up to 1300 Pa and a air flow from 0 to 650 m³/hour. It is constructed of 1,5 mm steel plate and is spot welded. It has a 3-phase motor 3x230/400 V and 1x230V 50/60 Hz, 2800 r.p.m. . The fan is enclosed in Class IP 54.



Our products are frequently updated and improved. Minor changes may not yet be incorporated in this manual. Always state the year of build, type and serial number of the machine in correspondence.

Manufacturer and importer assume no responsibility for defects which result from not reading the manual carefully or wrong use of the machine. No rights can be derived from this manual.

 Internet: www.huvema.nl

CE DECLARATION OF CONFORMITY

(in accordance with supplement II A of the Machinery Directive)

Industrie & Handelsonderneming Huberts bv, Kennedylaan 14, 5466 AA Veghel, the Netherlands, in the capacity of importer, is to be held responsible for declaring that the Huvema machines:

Grimax 50,75,100,150 S-Brake

which this declaration relates to, are conform the following norms:

NEN-EN-ISO 12100:2010, NEN-EN-IEC 60204-1:2006

and meet the basic requirements of the:

- Machinery Directive 2006/42/EC
- Low Voltage Directive 2006/95/EC
- Electromagnetic Compatibility Directive 2004/108/EC

Veghel, the Netherlands, December 2013

L. Verberkt
Managing director

Hüvema